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Notice of Allowability

Application No.

10/648,616

Examiner

Thao P. Le

Applicant(s)

CHEUNG ET AL.

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/31/05.
2. ☒ The allowed claim(s) is/are 1-11, 17-29, 31.
3. ☒ The drawings filed on 26 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Thao P. Le

DETAILED ACTION

Response to Amendment

This Office Action is in response to Amendment filed on 3/31/05.

Claims 12-16, 30 have been cancelled.

Claims 1-11, 17-29, 31 are pending in this application.

Terminal Disclaimer filed over U.S. Patent No. 6,869,896 has been approved.

Reason for allowance

Claims 1-11, 17-29, 31 are allowed. The following is an examiner's statements of reason for allowance:

Set of claims 1-6, 29: None of the references of record teaches or suggests the claimed limitations having a method of depositing a low dielectric constant film on a substrate comprising reacting two or more organosiloxanes selected from the group consisting of 1,3-bis(silanomethylene)disiloxane, 1,1,3,3-tetramethyldisiloxane, hexamethyldisiloxane, 1,3-bis(silanomethylene)disiloxane, bis(1-methyldisiloxanyl)methane, 2,2-bis(1-methyldisiloxanyl)propane, 1, 3, 5, 7-tetramethylcyclotetrasiloxane, octomethylcyclotetrasiloxane, 1, 3, 5, 7, 9-pentamethylcyclopentasiloxane, 1, 3, 5, 7-tetrasilano-2, 6-dioxy-4, 8-dimethylene, 1,3,5-trisilanetetrahydropyran, and 2,5-disilanetetrahydrofuran and among other limitations cited in independent claim 1.

Set of claims 7-11: None of the references of record teaches or suggests the claimed limitations having a method of depositing a low dielectric constant film on a substrate comprising reacting two or more organosiloxanes selected from the group consisting of 1, 3, 5, 7-tetramethylcyclotetrasiloxane, octomethylcyclotetrasiloxane, 1, 3, 5, 7, 9-pentamethylcyclopentasiloxane, 1, 3, 5, 7-tetrasilano-2, 6-dioxy-4, 8-dimethylene, 1,3,5-trisilane tetrahydropyran, and 2,5-disilane tetrahydrofuran and among other limitations cited in independent claim 7.

Set of claims 17-20, 31: None of the references of record teaches or suggests the claimed limitations having a method of depositing a low dielectric constant film on a substrate comprising reacting two or more organosiloxanes, wherein a first organosiloxane of the two or more organosiloxanes is cyclic and comprises C, H, and O and a ring comprising carbon and oxygen, and a second organosiloxane of the two or more organosiloxanes is selected from the group consisting of 1, 3, 5, 7-tetramethylcyclotetrasiloxane, octomethylcyclotetrasiloxane, 1, 3, 5, 7, 9-pentamethylcyclopentasiloxane and among other limitations cited in independent claim 17.

Set of claims 21-28: None of the references of record teaches or suggests the claimed limitations having a method of depositing a low dielectric constant film on a substrate comprising a reaction of a mixture comprising an oxidizing gas and a siloxane comprising Si-O-Si-C-Si bonds and the low dielectric constant film comprises Si-C bonds and among other limitations cited in independent claim 21.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao P. Le whose telephone number is 571-272-1785. The examiner can normally be reached on M-T (7-6).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thao P. Le
Examiner
Art Unit 2818